



Theme 4 Governance of soil fertility/soil nutrients



Governance of Soil Fertility for Adaptation to Climate Change in Ukraine

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INTRODUCTION

Current Ukraine's agricultural policy does not have a generalizing legislative act that would establish objectives and a basic conceptual framework of a national-level policy of renewal and preservation of soil fertility and adoption climate-smart agriculture practices. To fulfill international obligations under the Paris Agreement and reduce the agricultural sector's vulnerability to climate change, the Ukrainian government has developed a draft of the Strategy for Prevention and Adaptation to Climate Change in Agriculture until 2030. However, it has not been enacted yet.

METHODS

Current national-level policies, strategies and aspects of soil fertility maintenance in Ukraine were analyzed.

RESULTS

The Environmental Security and Climate Adaptation Strategy of Ukraine until 2030 among the main tasks highlights the establishment of action plan for adaptation to climate change in agriculture and soil management, ensuring the support of organic farming and reduced tillage practices for preserving and increasing soil organic matter. The State Strategy for Regional Development for 2021-2027 also declares the provision of land protection to achieve a neutral level of degradation. With the reference to Ukraine's land degradation neutrality target, it is planned to increase the content of soil organic carbon (humus) in agricultural land by not less than 0.1% by 2030.

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Measures to adapt soil management to climate change are provided by the Concept of the National Target Program of Soil Use and Protection, 2022.

The planned results of the implementation of national policy until 2030 are:

decrease land use for agricultural purposes (by 5 %) and areas of arable land (by 10 %)

increase the productivity of agricultural lands (by 40-50%) through the rational use of fertilizers and chemical soil improvers on acidic and saline soils

higher share of the area of agricultural lands under extensive use (hayfields, pastures)

higher content of organic carbon (humus) in the soils

expansion of area of reclaimed lands and land under conservation measures

The first stage of the Concept's objectives (until 2028) provides the improvement of legislative, scientific, informational, organizational, and technical support for the rational use of land resources and their protection at the national level and the establishment of a legal and regulatory framework.

The Concept and the National Action Plan to Combat Land Degradation and Desertification declare conducting continuous soil surveys of the lands of Ukraine, which still has not been started, and application of soil conservation practices to protect soils and prevent their degradation, however, there is no state support for farmers in Ukraine to apply soil conservation practices.

Agreement on the financing of the event "EU Support for the Development of Agriculture and Small Farms in Ukraine" (ENI/2020/042-345), signed in 2020, aimed at the development of policies and programs of state support of small and medium-sized farms, and the implementation of reforms for sustainable soil management.

CONCLUSIONS

Ukraine's existing legal framework for adaption agricultural production and soil management to climate change needs to be improved. In addition, European integration processes require further harmonization of Ukrainian legislation with EU legislation. The current state and trends of soil degradation postulate the development of a program to stimulate soil conservation and climate-smart farming in Ukraine. The adoption of the Law on Soil Conservation and Protection and the establishment of the State Service for Land Monitoring and Soil Fertility Protection are urgent issues, especially in conditions of intensified soil degradation under military action by Russia in Ukraine.

